## **CLAIMS**

What is claimed is:

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- 1. An object detection system for a vehicle comprising:
- an emitter mounted to transmit a signal within a defined field, said defined field adjacent a closure path of a moveable closure member;
  - a receiver to receive said signal as transmitted within said defined field; and
  - a controller in communication with said receiver, said controller operable to construct a map of said signal received by said receiver.

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- 2. The system as recited in claim 1, wherein said emitter emits an ultrasonic signal.
- 3. The system as recited in claim 1, wherein said emitter emits an electromagnetic signal.
  - 4. The system as recited in claim 1, wherein said emitter transmits said signal as a pulse.
- 20 5. The system as recited in claim 1, wherein said moveable closure member includes a vehicle window.
  - 6. The system as recited in claim 1, wherein said emitter is attached to a vehicle window frame.

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7. The system as recited in claim 1, wherein said receiver is attached to a vehicle window frame.

- 8. The system as recited in claim 1, wherein said emitter transmits said signal only when said closure member is being closed.
- 9. The system as recited in claim 8, wherein said controller stops movement of said moveable closure member in response to identification of said variation in said defined field.

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10. A moveable closure assembly comprising:

a closure moveable through a closure path;

an emitter mounted to transmit a signal within a defined field, said defined field adjacent said closure path;

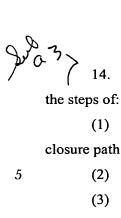
a receiver to receive said signal as transmitted within said defined field; and

a controller in communication with said receiver, said controller operable to construct a map of said signal received by said receiver such that insertion of an object within said defined field produces a variation in said map.

The assembly as recited in claim 10, further comprising an actuator to move said window glass through said closure path.

The assembly as recited in claim 17, wherein said controller is in communication with said actuator and said emitter, said emitter transmitting said signal only when said closure member is being moved in a first direction.

The assembly as recited in claim 1, wherein said controller is in communication with said actuator and said emitter, said controller operable to stop said actuator in response to identification of said variation in said map.



A method of detecting an object in a moveable closure path comprising of:

- (1) transmitting a signal within a defined field, said defined field adjacent a closure path of a moveable closure member,
  - (2) receiving said signal as transmitted within said defined field;
  - (3) mapping said signal received in said step (2); and
  - (4) identifying a variation in said mapped signal of said step (3).

A method as recited in claim 14, further comprising the step of reversing movement of said moveable closure member in response to said variation in said signal.

A method as recited in claim 14, wherein said step (1) includes transmitting said signal only when said moveable closure member is being closed.

A method as recited in claim 14, wherein said step (1) includes transmitting said signal as a pulse.

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